

CLAIMS

1. Filter manipulator (2) for extraction of a used filter (10) and for insertion of a new
5 filter in a hearing aid, whereby the manipulator (2) comprises a gripping part (5) to
be gripped and held by a user and has a first tool (6) part extending from the gripping
part (5) for initially holding a new filter (10) and subsequently releasing the filter
(10) in the sound outlet tube, vent opening or sound canal, wherein a second tool part
(7) is arranged adjacent to the first tool (6) part and adapted to receive and hold a
10 used filter (10) in order to extract the filter from the vent or sound outlet opening of a
hearing aid.
2. Filter manipulator (2) as claimed in claim 1, where the two tool parts are arranged
side by side along one and the same edge part (8) of the gripping part (5).
- 15 3. Filter manipulator (2) as claimed in claim 1 where the second tool part (7) comprise a
protruding part extending from an edge portion (8) of the gripping part (5), and
where the protruding part has an outwardly extending flange portion (12) at its outer
end.
- 20 4. Filter manipulator (2) as claimed in claim 3 where the outwardly extending flange
portion (12) has a surface facing the edge portion (8) of the gripping part (5) and
where said surface extends essentially perpendicular to the length axis of the
protruding part.
- 25 5. Filter manipulator (2) as claimed in claim 3, where the protruding part in the
direction of the length axis thereof is sectioned into two or more independent sections
with slots of free space between the sections.
- 30 6. Filter manipulator (2) as claimed in claim 1, where the second tool (7) comprises
blade parts (25,26) having first (25) and second (26) opposed blade parts for gripping
and holding a filter (10) at the external circumference thereof.

7. Filter manipulator as claimed in claim 1, where the blade parts (25,26) are arranged to extend along the surface of the edge portion (8) of the gripping part but distanced from said edge portion (8).
- 5 8. Filter (10) for a hearing aid sound outlet opening, vent opening or sound canal, whereby the filter (10) comprises an essentially tubular element adapted to the mouth diameter of the acoustic passage or the vent where the tubular element at a first opening has an ear wax retaining barrier (21), or filter segment whereby the filter (10) is made of a rigid material and the tubular element at its second opening has an
10 outwardly extending flange portion (23) and/or an inwardly extending flange (22) for removal of the filter (10) from the acoustic outlet port, the vent or the sound canal.
9. Filter (10) as claimed in claim 8, wherein the inwardly extending flange (22) at the second opening has a surface facing away from the opening of the filter whereby said
15 surface extends perpendicular to the length axis of the tubular element.
10. Filter (10) as claimed in claim 8, wherein the innermost diameter of the gripping flange (22) is smaller than the diameter of the outwardly extending flange (12) on the corresponding extraction tool (7).
20
11. Holder (1) for a number of filter manipulators (2,2a) as defined in any one of claims 1- 6, whereby the holder (1) has a number of pockets (3) each shaped to accommodate one manipulator (2) such that a gripping part (5) of the manipulator is accessible for gripping by the fingers of a user and such that an edge part (8) of each
25 manipulator with two tools (6,7) extending therefrom is accommodated within the pocket (3).
12. Holder (1) as claimed in claim 11, whereby each pocket (3) has engagement means (35) for releasable engagement with a filter manipulator (2).
- 30 13. Holder (1) as claimed in claim 11, whereby the holder has a center part (4), with the pockets (3) arranged to extend radially away from said center part (4).

14. Holder (1) as claimed in claim 13, whereby the pockets (3) are arranged flat in one and the same plane.
15. System comprising a filter manipulator (2) and a holder (1) for a filter manipulator (2), whereby the manipulator (2) has a first tool part (6) for initially holding and subsequently releasing a new filter (10) in the sound outlet tube, vent opening or sound passage of a hearing aid and a second tool part (7) adapted to receive and hold a used filter (10), where the manipulator (2) further comprises a gripping part (5) to be gripped and held by a person and where the first and second tool parts (6,7) are arranged side by side at the gripping part (5), whereby the holder (1) for the manipulator (2) comprises at least one pocket (3) for accommodating at least the two tool parts (6,7).
16. System as claimed in claim 15, whereby a snap lock mechanism (30,35) is provided between the holder (1) and the filter manipulator (2) for releasable engagement between the two.
17. System as claimed in claim 16, whereby the snap lock mechanism (30,35) comprises a U-shaped cut out (30) in the manipulator (2) with a first (31) and a second (32) leg, and a protruding part (35) inside the pocket (3), whereby the legs (31,32) of the U-shaped cut-out (30) of the manipulator (2) are shaped to embrace the protruding part (35) in interlocking engagement when the manipulator (2) is inserted into the pocket (3).
18. System as claimed in claim 17, whereby the U-shaped cut-out (30) is arranged between the two tool parts (6,7) of the manipulator (2), and such that the first and second leg (31,32) of the U-shaped cut-out (30) carry the first (6) and second (7) tool part respectively.
19. System as claimed in claim 15, where the filter manipulator (2) and the pocket (3) are shaped in asymmetric fashion, such that the manipulator (2) can only be inserted in the pocket (3) when oriented in one way with respect to the holder (1).

20. System as claimed in claim 15, where the pocket (3) has material parts or shoulders (36,37), which narrowly surrounds the second tool part (7) of the manipulator (2) when the manipulator (2) is clicked in place in the pocket (3) in order that the manipulator (2) cannot be inserted into the pocket (3) of the holder (1) once a used
5 filter (10) is held at the second tool part (7).
21. System as claimed in claim 19, whereby the U-shaped cut-out (3) is slightly off-set to one side to make one of the legs of the U-shaped cut out bigger than the other leg, and that the corresponding protruding part (35) in the pocket is similarly off set to
10 thereby assure the asymmetric shape of the manipulator (2) and pocket (3).